## AIDS 2.0 – deadly compassion – The role of Anthony Fauci and the ACT UP activists in the compassionate release of AZT, a deadly drug, in 1987

For some time now, the industry is trying to promote the unblinding of the placebo controlled so called COVID-19 vaccine studies, supported by the usual suspects as the WHO. Unblinding the trials means to reveal to the participants of the studies who was given the vaccine (verum) and who received the placebo. Those who have received the placebo may then opt to get vaccinated. Obviously, after most participants received at least one vaccination it is impossible to identify side effects, especially long-term side effects, and to perform an objective benefit-risk assessment.

This is a common procedure in "drug research". In order to justify the unblinding, one usually refers to ethics and so-called ethics experts. As soon as a substance appears to have an effect, it is declared as ethically unjustifiable to give to some people the placebo and to withhold the verum.

The studies are designed to take several years, e.g. Biontech/Pfizer until May 2023. Cf.

• "Study to Describe the Safety, Tolerability, Immunogenicity, and Efficacy of RNA Vaccine Candidates Against COVID-19 in Healthy Individuals", Biontech/Pfizer, updated June 1, 2021, <a href="https://clinicaltrials.gov/ct2/show/NCT04368728">https://clinicaltrials.gov/ct2/show/NCT04368728</a>

For ethical reasons, however, the studies are discontinued, see Herper (2021) below.

We will never know from the authorities how safe the vaccinations are, which were launched in the US by emergency approval and in Europe by conditional approval. But approved is approved. One should not hope that the majority of doctors will be scared off by incomplete studies.

Cf. on unblinding of COVID-19 vaccine trials,

• Singh et al., "Placebo use and unblinding in COVID-19 vaccine trials: recommendations of a WHO Expert Working Group", Nature Medicine (27), pp. 569–570 (2021); 16 March **2021**, https://www.nature.com/articles/s41591-021-01299-5

"Consequently, qualifying candidate vaccines are being deployed before conclusion of their trials and/or the collection of longer-term data on safety and efficacy."

"The Working Group has concluded that although there is a scientific imperative to continue trials of vaccines against COVID-19 after a candidate vaccine is granted an EUD, **there is also an ethical imperative** to ensure that trial participants who are at substantial risk of infection with the coronavirus SARS-CoV-2, and severe COVID-19 morbidity or mortality—such as healthcare workers at high to very high risk of acquiring and transmitting the disease, and people above 65 years of age—are in a position to access an EUD vaccine as soon as practically possible, **should they wish to do so**."

"Participants should then be offered the opportunity to be unblinded, so that they can make an **informed decision** about whether to withdraw from the trial and access an EUD vaccine programmatically as soon as practically possible, **should they wish to do so**."

Who can blame the doctors? It is the patient who decides. It remains to be seen on which database an "informed decision" should be made.

- Matthew Herper, "Pfizer and BioNTech speed up timeline for offering Covid-19 vaccine to placebo volunteers", statnews, Jan. 1, **2021**, <a href="https://www.statnews.com/2021/01/01/pfizer-and-biontech-speed-up-timeline-for-offering-covid-19-to-placebo-volunteers/">https://www.statnews.com/2021/01/01/pfizer-and-biontech-speed-up-timeline-for-offering-covid-19-to-placebo-volunteers/</a>
- Stoehr et al., "Ethical Considerations for Unblinding and Vaccinating COVID-19 Vaccine Trial Placebo Group Participants", Front. Public Health, 24 June **2021**, https://www.frontiersin.org/articles/10.3389/fpubh.2021.702960/full

"We argue that, once proven efficacious, vaccine makers and **researchers have an ethical obligation to unblind the placebo groups of COVID-19 vaccine trials** and offer them vaccine, based on the four principles of medical ethics."

• Lenzer, "Covid-19: Should vaccine trials be unblinded?", BMJ 2020;371:m4956, Dec 29, **2020**, https://www.bmj.com/content/371/bmj.m4956

Basically, this is nothing new. There has always been "compassionate use", the administration of experimental medicines out of compassion. But it has been institutionalized and rolled out broadly. It is a deadly compassion for the patient, as the example of HIV and the AID Syndrome shows.

Cf. on the stopping and unblinding of trials on presumed drugs against the AID Syndrome,

- Ellen C. Cooper, "Changes in Normal Drug Approval Process in Response to the AIDS Crisis", Food, Drug, Cosmetic Law Journal, Vol. 45, No. 4 (JULY **1990**), pp. 329-338, <a href="https://www.jstor.org/stable/26659051">https://www.jstor.org/stable/26659051</a>
- Eve Nichols, "Expanding Access to Investigational Therapies for HIV Infection and AIDS", Conference Summary, Institute of Medicine Roundtable for the Development of Drugs and Vaccines Against AIDS; National Academies Press 1991, March 12–13, 1990, https://www.ncbi.nlm.nih.gov/books/NBK234125/

"The phase 2 study was **stopped** in September of that year, when an independent data safety monitoring board found a dramatic difference in outcomes between the 145 patients receiving zidovudine and the 137 patients receiving placebos (19 patients in the placebo arm of the trial had died, compared with only a single death in the zidovudine group)."

What is meant here is the following trial. Death was not the only endpoint when the study was discontinued. The participants in the AZT arm (verum) showed the most severe disorders of the hematopoietic system (blood and bone marrow). When the study was discontinued, it was unclear how long these people would have to live and what the result would have been 4 weeks later. But by then there was no more comparison group.

• Fischl et al., "The efficacy of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex. A double-blind, placebo-controlled trial", N Engl J Med, 1987 Jul 23;317(4):185-91, https://pubmed.ncbi.nlm.nih.gov/3299089/

and

• Richman et al., "The toxicity of azidothymidine (AZT) in the treatment of patients with AIDS and AIDS-related complex. A double-blind, placebo-controlled trial", N Engl J Med, 1987 Jul 23;317(4):192-7, https://pubmed.ncbi.nlm.nih.gov/3299090/

"Twenty-one percent of AZT recipients and 4 percent of placebo recipients required multiple redcell transfusions (P less than 0.001). Neutropenia (less than 500 cells per cubic millimeter) occurred in 16 percent of AZT recipients, as compared with 2 percent of placebo recipients (P less than 0.001)."

"Although a subset of patients tolerated AZT for an extended period with few toxic effects, the drug should be administered with caution because of its toxicity and the limited experience with it to date."

It is important to note that the results of this terrible trial (Fischl and Richman for Burrougs Wellcome) were split into separate article. The *good news* article (Fischl et al.) and the *bad news* article (Richman et al). Take both articles together, and in view of these side effects, one cannot seriously speak of a therapy. Needless to say that "science" in the sequel only cited the good news article by Fischl et al.

It would have been very wise to continue the drug trial instead of aborting it based on a momentary random result. After 44 weeks, approximately **27%** of a group of 4805 people who had been treated with AZT (zidovudine) as part of a "compassion program" were dead.

• Creagh-Kirk et al., "Survival experience among patients with AIDS receiving zidovudine. Follow-up of patients in a compassionate plea program", JAMA **1988** Nov 25;260(20):3009-15, <a href="https://jamanetwork.com/journals/jama/article-abstract/375200">https://jamanetwork.com/journals/jama/article-abstract/375200</a>

"Through a **compassionate plea program** (Treatment Investigational New Drug), 4805 patients with acquired immunodeficiency syndrome who previously had experienced Pneumocystis carinii pneumonia (PCP) received zidovudine (Retrovir, formerly azidothymidine). **Overall survival at 44** weeks after initiation of therapy was 73% (+/- 2.1%)."

6 years later it was found that AZT has no therapeutic effect. But then it was too late.

• Seligmann et al "Concorde: MRC/ANRS randomised double-blind controlled trial of immediate and deferred zidovudine in symptom-free HIV infection" Lancet **1994**; 343: 871-81, <a href="https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2894%2990006-X/abstract">https://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2894%2990006-X/abstract</a>

"The results of Concorde do not encourage the early use of zidovudine in symptom-free HIV-infected adults. They also call into question the uncritical use of CD4 cell counts as a surrogate endpoint for assessment of benefit from long-term antiretroviral therapy."

"In all, 99 Imm and 38 Def participants **stopped trial capsules because of adverse events**. In only 16 Imm and 2 Def was haematological toxicity the main reason; in the rest it was predominantly gastrointestinal or neurological symptoms (headache) or malaise (table 6). **One or more blood transfusions were received by 18 Imm and 11 Def while they were taking trial capsules.**"

However, these results did not result in any rethinking, but a merciless persecution of all critics. In view of the AZT victims, what other option did the responsible have, as seeking relief in attacking the critics? And it generated incredible profits.

A critical summary of the AZT (zidovudine) approval process can be found here,

• Celia Farber, "AIDS and the AZT Scandal: SPIN's 1989 Feature, 'Sins of Omission' - The story of AZT, one of the most toxic, expensive, and controversial drugs in the history of medicine", Nov 1989, republished Oct 5, 2015, <a href="https://www.spin.com/featured/aids-and-the-azt-scandal-spin-1989-feature-sins-of-omission/">https://www.spin.com/featured/aids-and-the-azt-scandal-spin-1989-feature-sins-of-omission/</a>

and here,

• John Lauritsen, "AZT On Trial", New York Native (published by Charles Ortleb), 19 October **1987**, <a href="https://www.duesberg.com/articles/jltrial.html">https://www.duesberg.com/articles/jltrial.html</a>

## Note:

It is important to keep in mind that AIDS patients in these years were homosexuals who were multiple infected through frequent unprotected sex (herpes, syphilis, gonorrhea, hepatitis A and B, ...), and who were also often severely addicted to drugs (heroin, cocaine, amyl nitrite/poppers, ...). The use of amyl nitrites (poppers) was particularly common. Also, there was the abuse of antibiotics.

• John Lauritsen, Hank Wilson, "Death Rush: Poppers and AIDS", **1986** http://paganpressbooks.com/jpl/POPPERS.HTM

"96-100% of the gay men with AIDS used poppers, usually quite heavily."

Cf. also,

• Pifer et al., "Borderline immunodeficiency in male homosexuals: is life-style contributory?", South Med J. 1987 Jun;80(6):687-91, 697, https://www.ncbi.nlm.nih.gov/pubmed/2954211

"Results of our study suggest that white Southern male homosexuals without clinical evidence of AIDS who patronize "gay bars" may have significant zinc deficiency and moderately depressed T-helper/T-suppressor cell ratios. No single causative factor could be identified to explain the significantly low zinc and elevated copper levels measured in whole blood, as well as the depressed OKT4/OKT8 cell ratios. Seventy-four percent of the homosexual male subjects were "recreational" drug abusers, 81% used inhalant nitrites routinely, and 41% routinely treated themselves with antibiotics. Eighty-one percent practiced active and/or passive penile-oral insertion, and 55.5% practiced both active and passive anal intercourse. Of the latter, 19% reported anal bleeding. Clinically inapparent, though statistically significant, borderline immunodeficiency and aberrant zinc and copper levels may be a consequence of multiple factors comprising the gay bar life-style."

Even today, more than 30 years later, 90% of the HIV+ measured people in industrialized nations come from risk groups (drug addicts, MSM - men-having-sex-with-men).

It has long been known that drugs are immunosuppressive, especially opioids and nitrites. Drug abuse leads to exactly the same opportunistic infections that are summarized under the AID Syndrome, cf.

• Roy et al. "Opioid Drug Abuse and Modulation of Immune Function: Consequences in the Susceptibility to Opportunistic Infections", J Neuroimmune Pharmacol (2011) 6:442–465 <a href="https://www.ncbi.nlm.nih.gov/pubmed/21789507">https://www.ncbi.nlm.nih.gov/pubmed/21789507</a>

"As the body of evidence in support of opioid dependency and its immunosuppressive effects is growing, it is imperative to understand the mechanisms by which opioids exert these effects and identify the populations at risk that would benefit the most from the interventions to counteract opioid immunosuppressive effects."

"Chronic opioid use and abuse has been documented to severely compromise the immune system and thereby, increase the risk of opportunistic infection (Roy and Loh 1996; Roy et al. 2006; Friedman and Eisenstein 2004; Dinda et al. 2005)."

• Dax et al., "Effects of Nitrites on the Immune System of Humans", in NIDA Research Monograph 83, Health Hazards of Nitrite Inhalants, Ed. Haverkos und Dougherty, **1988**, p. 75, <a href="https://archives.drugabuse.gov/sites/default/files/monograph83.pdf">https://archives.drugabuse.gov/sites/default/files/monograph83.pdf</a>

"Eight **HIV-negative male volunteers** gave informed consent to participate in this study. [...] Over 4 days of the second week, each volunteer participated in 13 inhalation sessions (0.18, 0.3, and 0.46 ml

amyl nitrite each three times, and four placebo doses). The placebo, banana oil, was included in each inhalation session with or without amyl nitrite"

"The results showed that exposure to amyl nitrite can induce changes in immune function even after short exposure to moderate doses. Several tests of immune function showed an "overshoot" over basal activity at 7 days following nitrite inhalation after an initial immunosuppression."

Back to compassion. Who can argue against the ethically required compassion? In individual cases one can perhaps argue for a "compassionate use" of a new wonder drug in relation to the risks. But with the "parallel track program" for didanosine (ddl) it became the norm. The main promoter of this program was **Anthony Fauci**, director of NIAID.

• Jeffrey Levi, "Unproven AIDS Therapies: The Food and Drug Administration and ddl", in Biomedical Politics, Institute of Medicine (US) Committee to Study Decision Making; Kathi E. Hanna (Ed.), Washington (DC): National Academies Press (US); 1991, <a href="https://www.ncbi.nlm.nih.gov/books/NBK234216/">https://www.ncbi.nlm.nih.gov/books/NBK234216/</a>

"After several years of experience with AZT as the only approved antiretroviral drug in the arsenal against AIDS, it was clear that something better was needed, ddl was the first new antiretroviral to clear Phase I studies successfully, and thus, in the spring of 1989, it was finally possible to talk of another potential therapy besides AZT. Once that was clear, according to the FDA, some form of early access or compassionate use proposal was immediately put on the table—and supported by the FDA and the drug's sponsor, Bristol-Myers."

"In fact, however, the whole process was set in motion by Fauci's proposal for **parallel track** and his immediate linking of it to **ddI**."

Cf. also on the role of Anthony Fauci,

• The Pink Sheet, ""PARALLEL TRACK" PROPOSAL FOR AIDS DRUGS WILL BE ADDRESSED BY FDA ADVISORY COMMITTEE WITHIN A MONTH; REPORT TO HHS DUE BY AUG. 21, MASON TELLS WAXMAN", informa, 24 Jul 1989, <a href="https://pink.pharmaintelligence.informa.com/PS015969/PARALLEL-TRACK-PROPOSAL-FOR-AIDS-DRUGS-WILL-BE-ADDRESSED-BY-FDA-ADVISORY-COMMITTEE-WITHIN-A-MONTH-REPORT-TO-HHS-DUE-BY-AUG-21-MASON-TELLS-WAXMAN">https://pink.pharmaintelligence.informa.com/PS015969/PARALLEL-TRACK-PROPOSAL-FOR-AIDS-DRUGS-WILL-BE-ADDRESSED-BY-FDA-ADVISORY-COMMITTEE-WITHIN-A-MONTH-REPORT-TO-HHS-DUE-BY-AUG-21-MASON-TELLS-WAXMAN</a>

"Fauci had first proposed the idea of early release of promising agents to patients not able to qualify for clinical trials at a June AIDS conference ("The Pink Sheet" June 26, "In Brief"). Fauci met with Young and Mason on July 13 to discuss a NIAID draft proposal for how such a program could be implemented and FDA subsequently prepared a document of its own describing the proposed program. The two agencies' proposals are almost identical. Major aspects of the program include: Promising agents could be made available at the time they are in or are entering efficacy studies if adequate safety is demonstrated in Phase I studies. "Priority will be granted to agents showing

encouraging signs of efficacy," FDA said. **NIAID's proposal adds that an "indication of efficacy would not be a requirement."**"

With high doses of inadequately tested, toxic substances ("hit hard and early"), a "self-fullfilling prophecy" was created, when the severely pre-damaged population of drug-addicted homosexuals was additionally harmed by the presumed therapeutic agents.

Healthy individuals who were unlucky enough to be defined as sick (HIV+) by the catastrophically bad and unverified tests became sick by these substances. In addition, the immune system, like the blood-forming system, is heavily dependent on the ability of cells to divide. It is precisely this that is massively disturbed by the alleged therapeutic agents.

AZT was a former candidate for chemotherapy that had not been approved due to its toxicity. Exactly that, a disruption of cell division, is sought in chemotherapy, in the hope of disrupting the rapidly dividing cancer cells more than the healthy cells. In chemotherapy, such poisons are used for a short time, 10-14 days, but not for months and certainly not for a lifetime.

The examples from the medical practices focusing on HIV from these years showed catastrophic results. Some patients fell apart within months before the doctors' faces. They bled from all orifices of their bodies because the substances damaged all tissues. There were also severe kidney and liver damages. But the doctors in their virus madness advised to stick to the *life-saving* therapy. If at some point using these substances was stopped, because the side effects were no longer tolerable, it was usually too late.

In connection with AIDS at that time, the role of activists must be considered, such as the homosexual organization ACT-UP in the USA. At the time, ACT-UP ensured with public pressure and supported by Anthony Fauci, that the usage restrictions of experimental substances were massively weakened.

• ACT-UP, "FDA Action Handbook - Compassionate Use IND", Dec 12, **1988**, https://actupny.org/documents/FDAhandbook3.html#Compassionate%20Use

and

• ACT-UP, "FDA Action Handbook - **Drug Trials are Health Care Too**", Dec 12, **1988**, <a href="https://actupny.org/documents/FDAhandbook6.html#Rights">https://actupny.org/documents/FDAhandbook6.html#Rights</a>

"Based on these two unethical situations the following demands have been drawn up:

[...]

2) Subjects in a drug trial must not be forced to discontinue concurrent prophylaxis as a condition of participation; death or progression of opportunistic infections is an unacceptable corollary of the "science fore treatment" bias of many current trial.

[...]

- 5) Placebo trials which have as an endpoint the death of members of the control group, or their progression to opportunistic infection, are unethical and unacceptable."
- Jim Eigo (ACT UP), "AIDS Issues: Parallel track proposal for clinical drug development", United States. Congress. House. Committee on Energy and Commerce. Subcommittee on Health and the Environment, Testimony July 20 1989,

https://books.google.de/books?id=t7UdAAAAMAAJ&lpg=PA42&ots=loBsGOTbIO&dq=azt%20%E2%8 0%9Ccompassionate%E2%80%9D%20drug%20release%20program&hl=de&pg=PA42#v=onepage&q=azt%20%E2%80%9Ccompassionate%E2%80%9D%20drug%20release%20program&f=false

## "PARALLEL TRACK RATIONALE"

"AIDS is a new disease one which makes a person susceptible to a host of opportunistic infections
There is only one approved anti AIDS drug AZT a drug which many people cannot tolerate. Several
promising alternative anti-AIDS drugs are about to enter widespread clinical trials to determine their
efficacy. In the first phase of clinical trials these drugs have shown manageable toxicity and some
efficacy yet they are far from full marketing approval by the Food & Drug Administration FDA. In
addition, many of the drugs that are used to treat AIDS related opportunistic infections become
standard of care long before they are fully approved by FDA. It's imperative that drugs to fight AIDS
or related infections be available to people who are ill and have no reasonable treatment
alternatives long before those drugs gain the FDA's full marketing approval. Yet most of the people
who could benefit from investigational AIDS drugs will be ineligible for the drugs, clinical trials or
otherwise unable to enter then. The best treatment for many people with acquired immune
suppression and its related infections will for the foreseeable future be with drugs that are still
investigational. People for whom the only alternative is death or the deterioration of the quality of
life cannot ethically be asked to wait for drug until all the bureaucratic niceties have been fulfilled."

How to decide which symptoms stem from the side effects of the experimental substances? Or whether there are any therapeutic effects at all? Is this how medical ethics work?

With a few exceptions, nobody spoke of the serious pre-existing conditions of those affected (see above). Usually that was completely ignored. On the part of medicine, but also the media, it was pretended that these were otherwise perfectly healthy people. That was consistent, because otherwise a virus theory makes no sense. Today all reports in Germany on COVID-19 ignore the high median age of 84 years and the multiple, age-related pre-existing conditions of those who died with a positive SARS-CoV2 test. Again one pretends that a virus hits people who are otherwise in the prime of their life and kills them.

Nothing has changed.

At that time, substances with catastrophic adverse effect profiles were approved in emergency procedures without a real test process, on "ethical grounds". Science later made sure that the side

effects were attributed to the HI virus. This was done, on the one hand, by freely made up adhoc assumptions,

• Pamela Dörhöfer, "HIV und Aids: Kampf gegen die Stigmatisierung – Interview mit Jürgen Rockstroh, Präsident der Europäischen HIV/Aids-Gesellschaft", 19 Nov **2019**, https://www.fr.de/wissen/hiv-aids-kampf-gegen-stigmatisierung-13201336.html

"Liegen bereits Erkenntnisse vor, ob eine langjährige Infektion und Einnahme der Tabletten verstärkt zu bestimmten Begleiterkrankungen führen?

Es gibt verschiedene Forschungsprojekte, die sich mit dieser Frage beschäftigen. Wir wissen, dass Bluthochdruck, Diabetes Mellitus und Osteoporose häufiger und bereits in jüngerem Lebensalter auftreten. Das hängt <u>vermutlich</u> damit zusammen, dass bei Infizierten – auch wenn sie mit Medikamenten die Viruslast gering halten – das Immunsystem ständig stimuliert wird. Das löst eine Entzündungsreaktion aus, die all diese Erkrankungen begünstigt."

[Translation: HIV and AIDS: Fighting stigmatization - Interview with Jürgen Rockstroh, President of the European HIV/AIDS Society]

"Are there any findings as to whether a long-term infection and taking the tablets lead additionally to certain concomitant diseases?

There are various research projects dealing with this question. We know that **high blood pressure**, **diabetes mellitus** and **osteoporosis** occur more frequently and at a younger age. This is **presumably** due to the fact that in infected people - even if they keep the viral load low with medication - the immune system is constantly stimulated. It triggers an inflammatory reaction that favors all these diseases."

On the other hand this was possible due to the **PCR** method, by which one can find gene fragments in everything and everyone, or at least one believes so. So one came from the disease mix under the name "AID Syndrome" or "AID Syndrome related complex" to the "HIV-related diseases", which correspond 1: 1 to the side effects of the alleged therapeutic agents.

The toxicity of the alleged therapy was hidden behind freely invented stories like the *immune reconstitution inflammatory syndrome*, which fantasies that the therapy is too effective and an overshoot of the supposedly reinstalled immune system kills the patient.

• Colomba und Rubino, "The Downside of an Effective cART: The Immune Restoration Disease", Current Perspectives in HIV Infection, Ed. Shailendra K. Saxena, April 10, **2013**, <a href="https://www.intechopen.com/books/current-perspectives-in-hiv-infection/the-downside-of-an-effective-cart-the-immune-restoration-disease">https://www.intechopen.com/books/current-perspectives-in-hiv-infection/the-downside-of-an-effective-cart-the-immune-restoration-disease</a>

"This phenomenon is known as a multitude of names including "immune reconstitution inflammatory syndrome (IRIS)", "immune reconstitution or restoration disease" (IRD) or immune reconstitution syndrome" and includes various forms of a clinical deterioration as a consequence of a rapid and

dysregulated restoration of antigen specific immune responses causing an exuberant inflammatory reaction and a cytokines storm. **This was first noted following the introduction of zidovudine monotherapy in the early 1990s**, [...]."

There is no science in that, it is pure fiction. But the ineffectiveness of the presumed therapy strongly questions the virus hypothesis of AIDS.

Cf. for an overview of the serious, life-threatening side effects of the so-called HIV therapy,

• HIV.gov, "Adverse Effects of Antiretroviral Agents", Jun. 03, **2021**, https://clinicalinfo.hiv.gov/en/guidelines/adult-and-adolescent-arv/adverse-effects-antiretroviral-agents

The multiple tissue damages of HIV+ measured people after several years of therapy are not due to a presumably omnipresent virus, but to the effects of the substance class of nucleoside and nucleotide analogues that damage the mitochondria of the cells, and thus the energy suppliers of the cells.

• Gardner et al., "HIV treatment and associated mitochondrial pathology: review of 25 years of in vitro, animal, and human studies.", Toxicol Pathol. **2014** Jul;42(5):811-22, https://www.ncbi.nlm.nih.gov/pubmed/24067671

"In 1988, the suggestion that the first antiretroviral drug, zidovudine, was the potential cause of muscle pathology in HIV-infected persons resulted in structural and biochemical patient studies demonstrating acquired mitochondrial dysfunction. Assessment of subsequent nucleoside analog reverse transcriptase inhibitor (NRTI) antiretroviral drugs has indicated that mitochondria are a common target of NRTI toxicity in multiple tissues, leading to a wide variety of pathology ranging from lipodystrophy to neuropathy. Overwhelmingly, these complications have emerged during post-licensing human studies."

"Millions of patients have been treated with mitochondrially toxic NRTIs and these drugs remain the backbone of antiretroviral rollout in much of sub-Saharan Africa."

There are also other classes of toxic substances with fantasy names such as integrase inhibitors or protease inhibitors. These substances are mainly one thing, toxic. And HIV+ measured people are supposed to take them for a lifetime. Usually, people are given a cocktail with a mixture of nucleoside or nucleotide analogs, integrase inhibitors, and protease inhibitors. But, and this is also completely concealed, the dosages have been reduced dramatically in the last 30 years. Many of the highly toxic substances, e.g. didanosine (ddI), stavudine (d4T), fosamprenavir (FPV), indinavir (IDV), nelfinavir (NFV), saquinavir (SQV) and tipranavir (TPV), have been replaced by less toxic ones, cf. above Hiv.gov (2021). Nobody tells the public about that.

Lo and behold, people treated this way live longer. That is sold as a success.

But reality cannot be deceived. Laws of nature are called so, because nature dictates them. And so we continue to ask ourselves "How does HIV-1 cause AIDS?"

• Coffin, Swanstrom, "HIV Pathogenesis: Dynamics and Genetics of Viral Populations and Infected Cells", Cold Spring Harb Perspect Med. **2013** Jan; 3(1), <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3530041/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3530041/</a>

"HOW DOES HIV-1 CAUSE AIDS? As is apparent from this article and the rest of the collection, in the **25+ years since its discovery**, we have learned an enormous amount about HIV, but we still cannot answer the one big question: How does HIV-1 cause AIDS?"

"Even if we knew the mechanism of HIV-mediated cell killing, we would not know how HIV-1 causes  $CD4^{\dagger}$  T-cell decline and AIDS in humans. The observation that virus and cell turnover rates in various SIVs in their natural hosts (such as  $SIV_{sm}$  in sooty mangabeys), which do not progress to AIDS, are essentially identical to those in humans, who do progress, implies that cell killing alone cannot account for AIDS pathogenesis. Indeed, this result is consistent with the high natural turnover rate of activated effector memory helper T cells, the primary target for HIV-1 infection, on the order of  $10^{10}$  cells per day, of which only a small fraction are infected after the initial primary infection phase."

It has been known for 30 years that far too few CD4 cells are infected so that the death of HIV-infected cells could lead to a dysfunction of the immune system. Even longer it is known that retroviruses do not kill cells. This was the reason why they had been considered as possible causes of cancer.

• Duesberg, "Retroviruses as carcinogens and pathogens: expectations and reality.", Cancer Res. **1987** Mar 1;47(5):1199-220, https://www.ncbi.nlm.nih.gov/pubmed/3028606

Sometimes the simplest answer is the right one.